Functional expression of eukaryotic membrane proteins in Lactococcus lactis

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Supplementary Material

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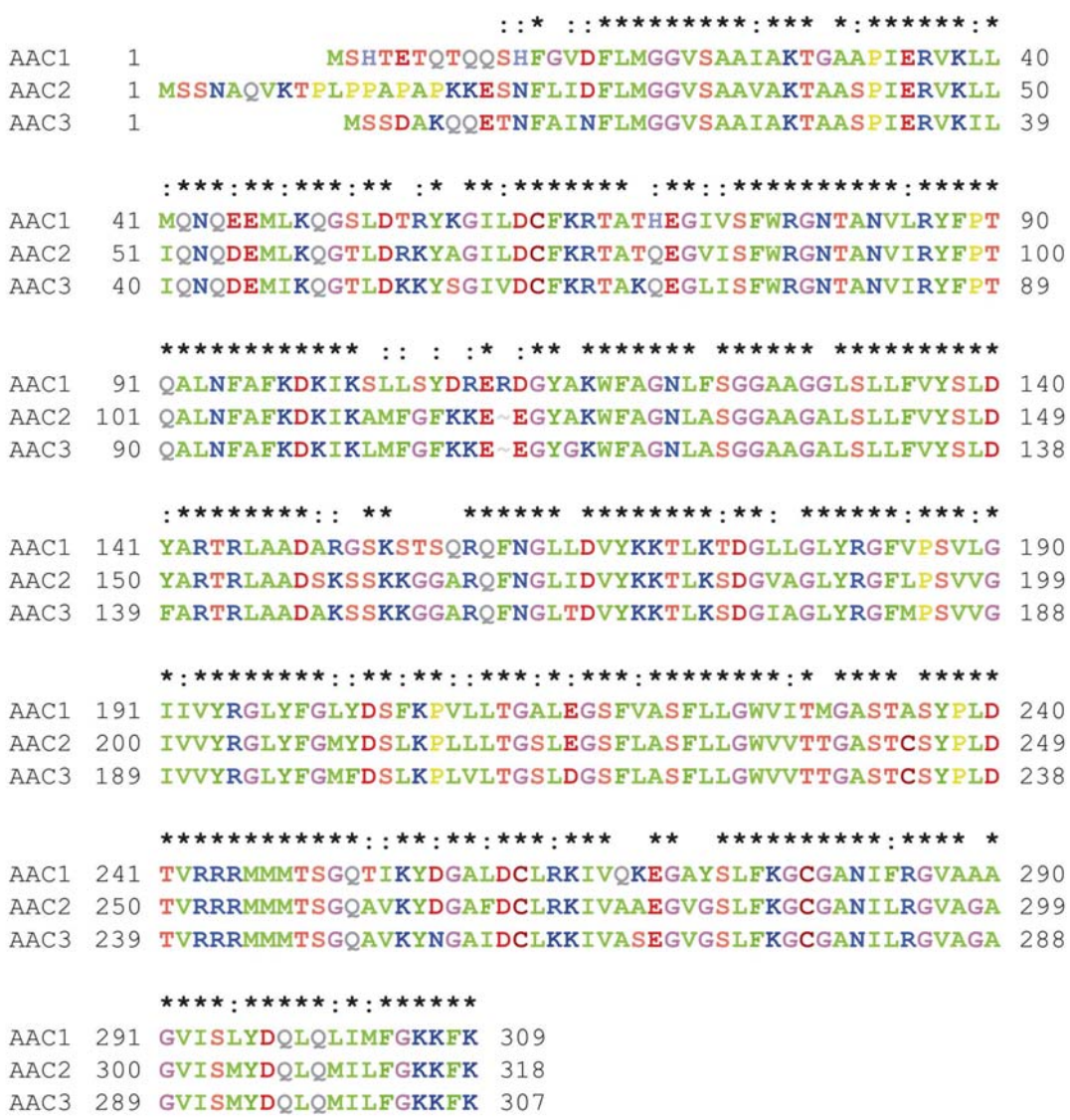
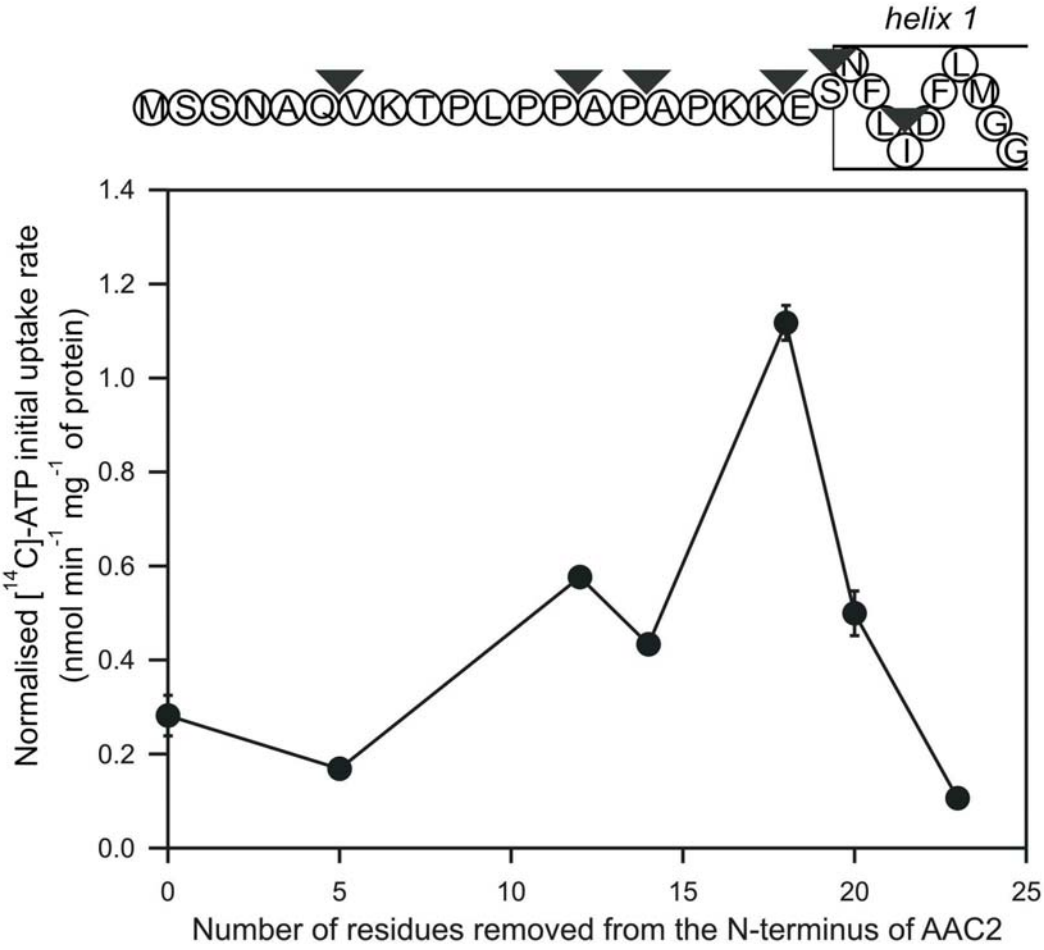
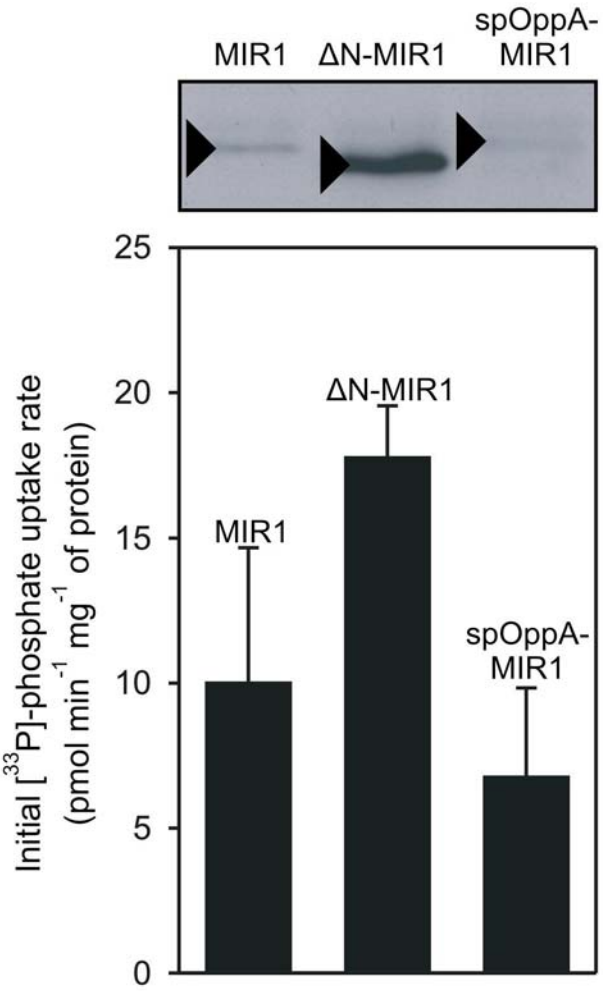


Supplementary Figure 1. Alignment of the amino acid sequences of the three ADP/ATP carriers from *Saccharomyces cerevisiae* AAC1, AAC2 and AAC3. Identical residues are indicated by an asterix and the similar amino acids by a colon.

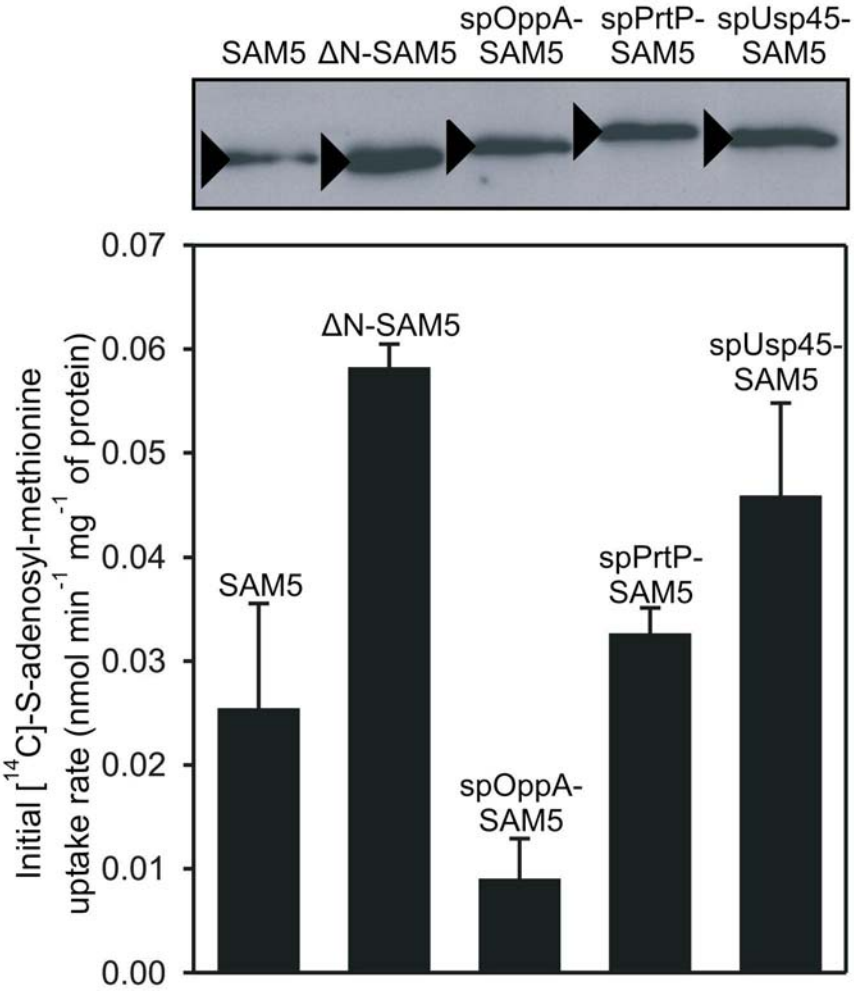


Supplementary figure 2. The normalised specific activity of ADP/ATP carrier AAC2 and the amino-terminal truncation mutants. Schematic representation of the N-terminal region of AAC2 (top) and the normalised initial uptake rate (bottom) for each of the truncation mutants (indicated by arrow heads). The normalised initial uptake rates is expressed as the initial uptake rate of the truncation mutants corrected for the expression levels, normalised to the one of AAC2. The data are taken from Figure 4 Monné *et al*.



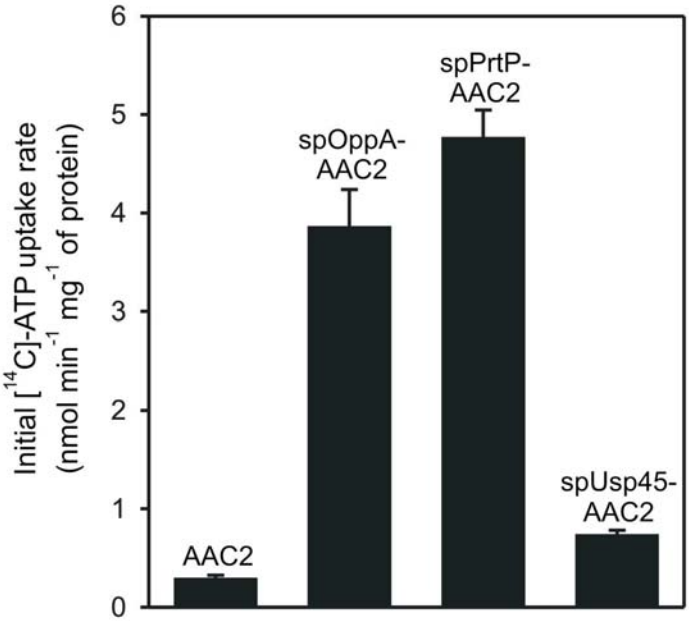
Supplementary Figure 3. Expression and transport activity of the different versions of yeast phosphate carrier MIR1

(a) Western blot (top) and the initial phosphate uptake rates (bottom) for the wild type MIR1, truncation mutant ΔN-MIR1 and spOppA-MIR1 fusion. The initial transport rates were corrected for the background. The initial uptake rates, measured after 4 min, are the average of three independent experiments carried out in triplicate with the standard error of the mean (SEM).



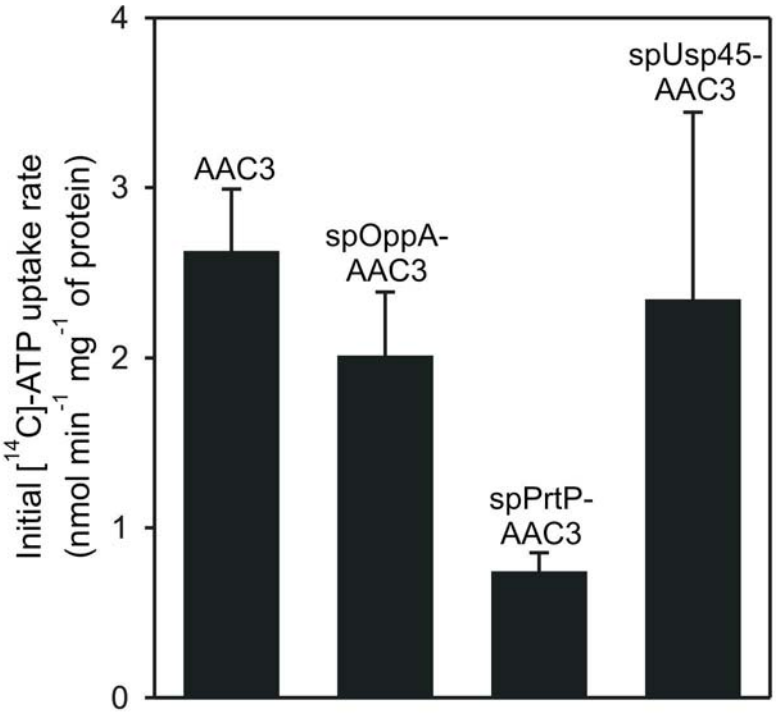
Supplementary Figure 4. Expression and transport activity of the different versions of yeast S-adenosyl-methionine carrier SAM5

(a) Western blot (top) and the initial S-adenosyl-methionine uptake rates (bottom) for the wild type SAM5, truncatation mutant ΔN-SAM5 and spOppA-SAM5, spPrtP-SAM5 and spUsp45-SAM5 fusions. The initial transport rates were corrected for the background. The initial uptake rates, measured after 8 min, are the average of three independent experiments carried out in triplicate with the standard error of the mean (SEM).



Supplementary Figure 5. Transport activity of the different versions of yeast ADP/ATP carrier AAC2

The initial ATP uptake rates for the wild type AAC2 and the spOppA-AAC2, spPrtP-AAC2 and spUsp45-AAC2 fusions. The initial transport rates were corrected for the background. The initial uptake rates, measured after 15 s, are the average of three independent experiments carried out in triplicate with the standard error of the mean (SEM).



Supplementary Figure 6. Transport activity of the different versions of yeast ADP/ATP carrier AAC3

The initial ATP uptake rates for the wild type AAC3, truncatation mutant ΔN-AAC3, and the spOppA-AAC3, spPrtP-AAC3 and spUsp45-AAC3 fusions. The initial transport rates were corrected for the background. The initial uptake rates, measured after 15 s, are the average of three independent experiments carried out in triplicate with the standard error of the mean (SEM).